<u>SUBJECT</u> <u>DATE</u>

1056.	Hazardous Waste Tanks and the Less than 90-Day Accumulation Time Limit	ENCORE	APR 23, 2015
1057.	Decharacterized RCRA Waste - Manifesting and LDR Reporting	ENCORE	APR 30, 2015
1058.	Decharacterized Hazardous Waste Listed Solely for Non-Toxic Characteristics	ENCORE	MAY 7, 2015
1059.	Decharacterized Wastes, <90-Day Accumulation Time Limits and LDR Storage Prohibition	ENCORE	MAY 14, 2015
1060.	Decharacterized Wastes and the LDR Dilution Prohibition	ENCORE	MAY 21, 2015
1061.	Hazardous Debris Macroencapsulation and Size Reduction	ENCORE	MAY 28, 2015
1062.	Universal Waste Lamps and Prohibition on Crushing		JUN 4, 2015
1063.	F003 Listed Hazardous Waste and the 10% Rule	ENCORE	JUN 11, 2015
1064.	F001 - F005 Listed Hazardous Waste and the 10% Rule	ENCORE	JUN 18, 2015
1065.	Macroencapsulation of Hazardous Debris and Presence of Free Liquids	ENCORE	JUN 25, 2015
1066.	DOT Shipping of Damaged, Defective or Recalled Lithium Batteries		JUL 1, 2015
1067.	Used Oil Eligibility for Animal and Vegetable Oils	ENCORE	JUL 9, 2015
1068.	Used Oil Eligibility for Petroleum Oils Mixed with Animal or Vegetable Oils		JUL 16, 2015
1069.	Conditioned Exclusion for Listed Hazardous Waste Debris Treated via Extraction/Destruction	ENCORE	JUL 23, 2015
1070.	Conditioned Exclusion for Characteristic Debris Treated via Immobilization		JUL 30, 2015
1071.	RCRA Personnel Training and Classroom Training vs. Online Training		AUG 6, 2015
1072.	PCB Decontamination Standards with No Decontamination Performed		AUG 13, 2015
1073.	PCB Manifest Exceptions a.k.a. When is a PCB Manifest Not Required	ENCORE	AUG 19, 2015
1074.	PCB Manifest Relief a.k.a. When is a PCB Manifest Not Required – The Sequel		AUG 27, 2015
1075.	Hazardous Debris and Radioactively Contaminated Cadmium Batteries	ENCORE	SEP 3, 2015
1076.	Hazardous Debris and Radioactively Contaminated Lead Acid Batteries	ENCORE	SEP 10, 2015
1077.	Mercury Wet Cell Batteries - Debris or Not Debris	ENCORE	SEP 17, 2015
1078.	Hazardous Debris and Non-Radioactive Lead Acid Batteries	LITOOTIL	SEP 24, 2015
1079.	Unused Paraformaldehyde - U Listed Hazardous Waste or Not?	ENCORE	OCT 1, 2015
1080.	CAS Numbers and the Hazardous Waste "U" and "P" Listings	ENCORE	OCT 8, 2015
1081.	Universal Waste One Year Accumulation and Multiple Handlers	ENCORE	OCT 15, 2015
1082.	LDR Notifications and F001-F005 Constituents of Concern	ENCORE	OCT 29, 2015
1083.	LDR Notifications and F001-F005 Constituents of Concern – Again	ENCORE	NOV 5, 2015
1084.	LDR Notifications and F001-F005 Constituents of Concern - One Last Time	ENCORE	NOV 12, 2015
1085.	DOT and Terminal Protection of Alkaline Batteries	ENCORE	NOV 19, 2015
1086.	Used Oil and Keeping Containers Closed – WAC 173-303 vs. 40 CFR 279	LINOONE	NOV 24, 2015
1087.	PCB Weight Determinations	ENCORE	DEC 3, 2015
1088.	Satellite Accumulation Requirements and Container Inspections	ENCORE	DEC 10, 2015
1089.	'Twas The Night Before Christmas - The Twenty-Third Annual Edition	ENCORE	DEC 24, 2015
1090.	Satellite Accumulation and 85-Gallon Containers	ENCORE	DEC 31, 2015
1091.	PCB Date Removed From Service Notations – On the Item or In a Log	ENCORE	JAN 7, 2016
1092.	The Date Removed From Service Marking on the PCB Mark	ENCORE	JAN 14, 2016
1093.	Generator Weekly Inspection Log Documentation – Federal vs. WA State	ENCORE	JAN 21, 2016
1094.	Used Oil and Weekly Inspections	ENCORE	JAN 28, 2016
1095.	TSCA/PCB Determinations for Fluorescent Light Ballasts via the Manufacture Date	ENCORE	FEB 4, 2016
1096.	PCB Containers and Multiple Removed From Service Dates	ENCORE	FEB 11, 2016
1090.	Generator Inspection Logs and Corrective Action Documentation	ENCORE	FEB 18, 2016
1097.	PCB Concentrations and Micrograms per Centimeters Squared (µg/cm²)	LINOONE	FEB 25, 2016
1099.	RCRA Empty Containers and Removing as Much Waste as Possible	ENCORE	MAR 3, 2016
1100.	PCB Incineration and "Six Nines" Destruction Removal Efficiency Criteria	ENCORE	MAR 10, 2016
1101.	RCRA Treatment and The Two-Part Definition	LINOONL	MAR 17, 2016
1101.	D002 Waste and Dilution as Adequate LDR Treatment	ENCORE	MAR 24, 2016
1102.	Satellite Accumulation of Aerosol Cans and Determining the 55-Gallon Limit	LINOUIL	MAR 31, 2016
1103.	Satellite Accumulation and Process Location Changes	ENCORE	APR 7, 2016
1104.	Satellite Accumulation Prior to and After Recycling	LINOUIL	APR 14, 2016
1105.	Method Detection Limits and Hazardous Waste Determinations	ENCORE	APR 21, 2016
1100.	MOLITOR DOLOGIOTI ETTILO ATO FIRERIODO VVASIO DELOTTITITALIOTO	LINOUIL	1121, 2010

TWO MINUTE TRAINING

TO: CH2M HILL PLATEAU REMEDIATION COMPANY

FROM: PAUL W. MARTIN, RCRA Subject Matter Expert

CHPRC Environmental Protection, Hanford, WA

SUBJECT: METHOD DETECTION LIMITS AND HAZARDOUS WASTE DETERMINATIONS

DATE: *APRIL 21, 2016*

CHPRC Projects	CH PRC - Env.	MSA	Hanford Laboratories	Other Hanford	Other Hanford
CHPKC Projects	Protection	<u>WISA</u>	Hamoru Laboratories	Contractors	Contractors
Richard Austin	Flotection	Jerry Cammann	(TBD)	Contractors	Contractors
	Brett Barnes	Jeff Ehlis	(160)	Bill Bachmann	D C
Roni Ashley		Garin Erickson	DOE DI ODD WIDD	Dean Baker	Dan Saueressig
Tania Bates	Mitch Boyd		DOE RL, ORP, WIPP		Merrie Schilperoort
Bob Cathel	Ron Brunke	Lori Fritz		Scott Baker	Joelle Moss
Rene Catlow	Bill Cox	Panfilo Gonzales Jr.	Mary Beth Burandt	Lucinda Borneman	Glen Triner
Richard Clinton	Laura Cusack	Dashia Huff	Duane Carter	Paul Crane	Greg Varljen
Larry Cole	Lorna Dittmer	Mark Kamberg	Cliff Clark	Tina Crane	Julie Waddoups
John Dent	Rick Engelmann	Edwin Lamm	Mike Collins	Jeff DeLine	Jay Warwick
Brian Dixon	Ted Hopkins	Candice Marple	Tony McKarns	Ron Del Mar	Kyle Webster
Eric Erpenbeck	Sasa Kosjerina	Saul Martinez	Ellen Mattlin	John Dorian	Jeff Westcott
Stuart Hildreth	Jim Leary	Jon Perry	Greg Sinton	Mark Ellefson	Ted Wooley
Mike Jennings	Dale McKenney	Thomas Pysto	Scott Stubblebine	Darrin Faulk	
Stephanie Johansen	Jon McKibben	Christina Robison		Joe Fritts	
Jeanne Kisielnicki	Rick Oldham	Don Rokkan		Tom Gilmore	
Melvin Lakes	Linda Petersen	Lana Strickling		Rob Gregory	
Marty Martin	Fred Ruck	Lou Upton		Gene Grohs	
Jim McGrogan	Ray Swenson			James Hamilton	
Stuart Mortensen	Wayne Toebe			Andy Hobbs	
Anthony Nagel	Lee Tuott			Ryan Johnson	
Dean Nester	Daniel Turlington			Dan Kimball	
Dave Richards	Dave Watson			Megan Lerchen	
Phil Sheely	Joel Williams			Richard Lipinski	
Connie Simiele				Charles (Mike) Lowery	
Jennie Stults				Michael Madison	
Michael Waters				Terri Mars	
Jeff Widney				Cary Martin	
				Grant McCalmant	
				Steve Metzger	
				Tony Miskho	
				Matt Mills	
				Tom Moon	
				Chuck Mulkey	
				Mandy Pascual	
				Kirk Peterson	
				Jean Quigley	
		1	<u> </u>	Jean Quigicy	

TWO MINUTE TRAINING

SUBJECT: Method Detection Limits and Hazardous Waste Determinations

- Q: A customer has a sample analyzed via the toxic characteristic leachate procedure (TCLP) to determine if the material is or is not regulated as a RCRA characteristic hazardous waste. Analytical results appear to indicate that all TCLP characteristics are below the specified regulatory levels for D001 through D043 characteristic hazardous wastes. However, the customer notes that the method detection limit (MDL) for selenium is 2.0 ppm TCLP and that the RCRA regulatory threshold is 1.0 ppm TCLP. Since the MDL is higher than the regulatory threshold, must the customer assume that the material is a D010 RCRA hazardous waste?
- A: Due to the variance between the MDL and the regulatory threshold it is not known via the analytical data if selenium is present at concentrations ranging from zero up to the MDL of 2.0 ppm TCLP. Therefore the customer has basically three options available for this situation:
 - 1. Re-test the material at a laboratory that can achieve an MDL of less than 1.0 ppm TCLP, or;
 - 2. Use generator knowledge to determine if the material is or is not characteristic for selenium, or;
 - 3. Assume the material is a hazardous waste and will exhibit the characteristic for selenium.

An EPA memo dated November 8, 1990, (<u>RO 11568</u>) and another dated March 25, 1991, (<u>RO 11592</u>) support the three options available to a generator when the MDL is higher than the regulatory threshold.

Note that these options would apply to land disposal restriction treatment standard thresholds referenced at 40 CFR 268.40 and 40 CFR 268.48 as well.

SUMMARY:

- If the MDL is higher than the regulatory threshold the customer should:
 - Assume the material is regulated as a hazardous waste, or;
 - Use generator knowledge to determine if hazardous or nonhazardous, or;
 - Re-test the material at a laboratory with an MDL less than the regulatory level.

The November 8, 1990 and the March 25, 1991 EPA memos are attached to the e-mail. If you have any questions, please contact me at "Paul_W_Martin@rl.gov" or at (509) 376-6620.

FROM: Paul W. Martin **DATE:** 4/21/16 **FILE:** c:\...\2MT\2016\042116.rtf **PG:** 1

TWO MINUTE TRAINING - ATTACHMENT

SUBJECT: Method Detection Limits and Hazardous Waste Determinations

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

November 8, 1990 FaxBack # 11568

Art Coleman
Technical Assistance Section
Division of Solid and Hazardous Waste Management
Ohio EPA
P.O. Box 1049
1800 Watermark Dr.
Columbus, OH 43266-0149

Dear Mr. Coleman:

I am writing in response to your letter of October 30,1990 concerning the questions you raised with Method 1311 (TCLP).

In answer to your first question, there are situations when a laboratory is asked to perform an inappropriate test. The TCLP was not intended to be applied to certain matrices, such as oils or neat solvents. In these instances, the waste usually goes through the filter and is, by definition, a liquid and its own extract. The analysis of this liquid extract for organics entails diluting it before injecting it into a GC or GC/MS. The dilution often results in detection limits being much higher than the regulatory thresholds. If this is the case, you **must assume your waste is hazardous** [EPA emphasis] since the laboratory cannot demonstrate non-hazardousness with TCLP for these materials. We currently do not have the technology to address this issue.

In answer to your second question, a laboratory **must** use the TCLP if testing for hazardousness under the Toxicity Characteristic or if assessing effectiveness of waste treatment under the Land Disposal Restrictions Program. These two regulations actually contain the method as an appendix and it is, therefore, part of the law. However, the extract obtained from the TCLP may be analyzed by **any** method as long as that method has documented QC and the method is sensitive enough to meet the regulatory limit. In other words, the lab does not have to use SW-846 methods because these methods are intended to serve only as guidance for the regulated community. SW-846 methods that are currently in draft form (e.g., 8250 for chlordane) may also be used to analyze the extract.

In answer to your third question, there are no plans to prepare a clarifying FR update in the near future.

I hope these answers have sufficiently addressed your concerns. If you have any further questions, please give me a call at (202) 475-6722 or write me again at the above address.

Sincerely yours,

Gail Hansen Health Scientist Methods Section (OS-331)

FROM: Paul W. Martin DATE: 4/21/16 FILE: c:\...\2MT\2016\042116.rtf PG: 2

TWO MINUTE TRAINING - ATTACHMENT

SUBJECT: Method Detection Limits and Hazardous Waste Determinations

Faxback 11592 9442.1991(04)

OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE

March 25, 1991

Mr. Richard S. Leonard, Quality Assurance Director National Environmental Testing, Inc. Woodland Falls Corporate Park 220 Lake Drive East, Suite 301 Cherry Hill, NJ 08002

Dear Mr. Leonard:

The purpose of this letter is to clarify some of the discussion in my letter of August 14, 1990 to you (copy enclosed) which was sent in response to your letter of August 1, 1990. Specifically, I would like to revise the response to question number 4. The original question and the revised response are as follows:

Question 4: Our clients complain that when we dilute a sample (e.g. oil or solvent matrix) to obtain results that meet quality control requirements, that the data so obtained are "useless" because of the high reporting limit. How do we generate analytical data for compliance decisions when dilution must be performed?

Answer: First I want to clarify that, at least with respect to used oil that is destined either for recycling or to be blended as fuel, there is no need on the part of the generator to run a TCLP since these wastes are eligible for the used oil exemption (see 40 CFR 261.6(a) (2) (iii) and (a) (3) (iii). In the case of oily waste that is to be disposed or solvent wastes, it is required that generators determine if their waste is hazardous using either knowledge of their waste and/or the process that generated it or by testing. If they choose to test, then they must use Method 1311 (TCLP). The Agency is aware that running the TCLP on matrices involving oily wastes and organic liquid wastes may result in labs being unable to determine conclusively that the waste is or is not hazardous. In those cases, the generator must use his/her knowledge to make this determination. Where no additional information or knowledge is available, it would probably be prudent for the generator to manage those wastes as hazardous wastes. Please note that in the case of liquid organic wastes, it is possible that these wastes may already be hazardous by virtue of a hazardous waste listing (e.g., spent solvents, hazardous wastes codes F001 -F005), in which case the hazardous waste determination with respect to the TC becomes much less critical (e.g., You would be determining if additional wastes codes applied to the waste instead of making the critical hazardous waste determination). I would also add that the Agency is aware of analytical problems associated with oily and organic liquid wastes and is investigating ways to solve them.

I would like to apologize for any misunderstanding or confusion which may have resulted from my earlier response, and I hope this revised response addresses your concerns. If you have any additional questions related to this or other TC/TCLP issues, please feel free to call Steve Cochran at (202) 382-4770.

Sincerely yours,

Alec McBride, Chief Technical Assessment Branch

FROM: Paul W. Martin **DATE:** 4/21/16 **FILE:** c:\...\2MT\2016\042116.rtf **PG:** 3